

20. (new) A method for transforming a cell comprising transforming a cell with the isolated nucleic acid fragment of claim 19.

21. (new) A cell comprising the recombinant DNA construct of claim 19.

22. (new) A method for producing a plant comprising transforming a plant cell with the isolated nucleic acid fragment of claim 14 and regenerating a plant from the transformed plant cell.

23. (new) A plant comprising the recombinant DNA construct of claim 19.

24. (new) A seed comprising the recombinant DNA construct of claim 19.

25. (new) An isolated isolated nucleic acid fragment comprising a first nucleotide sequence, wherein the first nucleotide sequence contains at least 30 nucleotides, and wherein the first nucleotide sequence is comprised by another polynucleotide, wherein the other polynucleotide includes:

(a) a second nucleotide sequence, wherein the second nucleotide sequence encodes a polypeptide having methionine synthase activity, wherein the amino acid sequence of the polypeptide and the amino acid sequence of SEQ ID NO:2 or 4 have at least 90% sequence identity based on the Clustal alignment method, or

(b) the complement of the second nucleotide sequence.

26. (new) An isolated polypeptide having methionine synthase activity, wherein the amino acid sequence of the polypeptide and the amino acid sequence of SEQ ID NO: 2 or 4 have at least 90% identity based on the Clustal alignment method.

27. (new) The polypeptide of Claim 26, wherein the amino acid sequence of the polypeptide and the amino acid sequence of SEQ ID NO:2 or 4 have at least 95% identity based on the Clustal alignment method.

28. (new) The polypeptide of Claim 26, wherein the amino acid sequence of the polypeptide comprises the amino acid sequence of SEQ ID NO:2 or 4.

29. (new) A method for isolating a polypeptide encoded by the isolated nucleic acid fragment of claim 14 comprising isolating the polypeptide from a cell containing a recombinant DNA construct comprising the polynucleotide operably linked to at least one regulatory sequence.

30. (new) A nucleic acid fragment comprising

(a) the recombinant DNA construct of claim 19, and
(b) a second recombinant DNA construct comprising a nucleic acid fragment encoding a plant cystathionine γ -synthase or a functionally equivalent subfragment thereof or a complement thereof operably linked to at least one regulatory sequence.

31. (new) A method for increasing methionine content of the seeds of plants comprising:

(a) transforming plant cells with the recombinant DNA construct of claim 19;
(b) growing fertile mature plants from the untransformed plant cells obtained from step (a) under conditions suitable to obtain seeds; and